

Letters Honolulu Weekly 1-27-93
Deadly Digestion

May I provide some clarification to statements made in a recent letter ("The fisherman's point of view," HW 12/23) on sharks and shark attacks in Hawaii. The letter stated that " ... in some fisheries in the Pacific, 60 to 70 percent of the tiger sharks examined are found to have turtle remains in their stomach contents." Readers might easily get the flawed impression that turtles are the overwhelming component of the tiger shark's diet. That's simply not the case. Numbers don't always tell the whole story. In this instance some basic knowledge of tiger shark and sea turtle biology is required. The digestive tract of tiger sharks functions in such a way that only paste-like material - the broken-down remains of prey - can pass out of the stomach into the intestines. Objects that can't be broken down in the stomach are retained there for an unknown and likely extended period of time. The outer surface of sea turtles is made of a tough keratin-like substance that is completely resistant to decomposition in the stomach. Consequently, these large and clearly recognizable items are held in the stomach, while the rest of the turtle, including the meat, bones and all else, is digested. These factors over-represent turtles in tiger sharks' stomachs, and give a biased picture to persons cutting open the animals to see what they eat. It is a biological fact that tiger sharks eat a wide variety of items- In a two year study conducted by the University of Hawaii, tiger sharks in Hawaiian waters were found to prey upon the following items (in descending order): fish, crabs and lobsters, garbage, birds,

sharks and rays, squid and octopus, turtles, porpoises or whales, and humans. Jean-Michel Cousteau summarized the situation correctly following the tragic death of Mrs. Morrell on Maui. Cousteau said, "Tiger sharks are particularly dangerous to swimmers. Some sharks are more fussy than others about what they eat. Tiger sharks are known to eat almost anything and everything, and ... are more likely to attack anything on the surface whether it's a piece of wood, a surfboard, a boat or a bird."

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